

# 432 MHz AND ABOVE EME NEWS

JULY 1999 VOL 27 #7

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## EME NETS

**14.345, 10 AM ET SATURDAYS, AFTER VARO NET SUNDAYS:**

- NET CONTL: JOE, K1RQG (207-469-3492), E-MAIL: **Joe, K1RQG**
- EME STANDINGS: JIM STARKEY, W0KJY, 3845 CAPITOL DRIVE,  
FT. COLLINS, CO 80526, (970) 226-0669)
- THE NL WEB VERSION IS PRODUCED BY W6/PA0ZN AND  
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# CONDITIONS

May did not produce a lot of reports, but there appears to have been plenty of activity on 70 and 23 cm, and even 6 and 3 cm were represented. Conditions were mixed with different stations perceiving conditions differently. I found 70 cm conditions quite good, and picked up 2 initials on random. Next month (July) there will be only 3 weeks between SWs. The July SW will move back to the high declination weekend and closer to perigee.

## BURMA 70 CM EME DXPEDITION

**BURMA 70 CM EME DXPEDITION:** W7TVF reports that there is an excellent chance that he will be on a dxpedition to Burma in Jan of the coming year. If he is selected to go, he will operate EME, possibly on 432. He is a good weak signal operator and has been on 432 EME. [TNX W7HAH for forwarding this info. Shep will keep us informed of developments.]

### **AL7OB**

Mike tried a number of 432 skeds in May, but did not have a lot of luck. On 16 May he heard nil from DL7APV - probably burned out preamp during this sked, nil KB4CNI - realized 25 minutes into the sked that preamp was bad, (Cowles copied him (339)), missed W7QX sked fixing preamp, Mike got his preamp back on the antenna with only 5 minutes left for his W7CNK sked and managed a good QSO by "borrowing" a few minutes into his next sked, and then worked WA9FWD, and JA5OVU later that night. During the SW on 21 May, Mike had an error in his AZ readout system and believes he was more than 15 deg off the Moon. He heard nil from K2UYH and KB4CNI. The Moon then became visible and he was able to correct his calibration error. Mike then had a partial with W7GBI (O/T). He was on for DK3WG but heard nil. He tried again on 24 May, but heard nil from K2UYH - [I did not receive news of the sked in time to be on], nil K1FO, partial KB4CNI (O/-), then his VSWR skyrocketed and nil W7GBI. Mike plans to try again during the June SW. He is also planning to add 23 cm EME this summer. Mike has a 13' 0.36 f/d dish, 2 x7289 PA and preamp. He needs suggestions for feed and TR relay.

### **DL4KGS**

Gerald was QRV in May, but will be moving QTHs and grids soon -- I found

May 70 cm SW conditions very changeable, and activity extremely low -- I heard hear my echoes most of the time, sometimes (529), and worked **DF3RU (549/549)**, **DL1YMK (539/559)** for initial #54 and **G3SEK (O/O)** - all on random. I heard JA5OVU (SSB test with DF3RU) and JA4BLC. A sked with DL8OBU was nil because of high noise (S5) on my side. No stations from the US were heard. Since the SW I have changed my job and I am now working in JN48. This is about 400 km from my home in JO31. I am still QRV, but only with limited time as I am not at home every weekend. I will start to dismantle my equipment in June/July and hope to move to JN48 in August. In the mean time I am trying to be QRV as often as possible. So, if anyone is interested in skeds - try my new e-mail address or , or my homepage at . A noise source, which drove me crazy for several weeks has disappeared and I can hear my echoes most of the time. My rig is now TS-850 + homemade transverter to a GS23B PA (1000 W out) and 4 x 29 el BV yagis.

#### **G3LTF**

Peter says that there is not too much to report this month -- WX was pretty poor with lots of wind on the Saturday of the SW. The libration was fast, so signals sounded weaker as well. On 1296, on 22 May I worked **HB9SV**, **W6HD** for initial #143 [see July 98 NL for Tay's station's details], **EA6ADW** and **ZS6AXT**, and on 23 May **DF4PV #144**, **LX1DB**, **SM2CEW** and **DF3RU**. I had a nice visit from W5LUA earlier in the month, we both have lots of plans, but less time than when we were young!

#### **HA5SHF**

Csaba's group report the following 23 cm QSOs during April and May: Worked on 17 April at **1520 W2UHI (549/449)** and **1526 K5JL (579/539)**, on 24 April at **1840 HB9SV (569/449)**, on 22 May at **1830 HB9SV (569/429)**, **1921 N2IQU (559/439)**, **2104 W2UHI (549/449)**, **2130 nil WA8WZG** on sked, **2200 nil W7SZ** on sked and **2234 KD5FZX (559/439)**, and on 23 May at **1543 EA6ADW (O/O)**, **1619 HB9SV (569/549)**, **2100 nil WA8WZG** on sked, **2130 nil K9BCT** on sked and **2230 nil VE6TA** on sked.

#### **JA6AHB**

Toshio is again QRV on 70 cm after several years of absence. He is now located in a new QTH and grid -- I have come back on 432 EME from a new QTH. The grid is PM53cp (my last operating location was in PM51kj). I am still running a K2RIW type PA with a new 7 m dish on an az-el mount. I am receiving 14 dB of Sun noise and am interested in skeds. My e-mail address is:

[Toshio, JA6AHB](#)

#### **K3HZO**

Harry was active on 1296 during the May preSW, but heard nil from **DJ5MN** and did QSO **F1ANH**. He was unable to be on for his 1st day SW skeds, and made no contacts on the 2nd day, but did hear **EA3UM** and **HB9SV**.

### **KB4CNI**

Cowles had the opportunity in May to visit the Greenbank Radio Astronomy Observatory and see the "GBT", which will soon be the largest steerable dish in the world (about 2.3 acre)! Before the SW Cowels worked on 432 **W7GBI** for an initial, **JA5OVU** and had a partial with **AL7OB**. During the May SW he had problems with thunder storms and heard nil from EA3DXU, only a partial with **DL3YEE** (T/-), nil **AL7OB** - heard good echoes, and did work **W7BBM**.

### **LX1DB**

Willie is working on 24 GHz EME and is looking for a feed system for his 0.4 f/d dish. He has waveguide and expects to have a 30 W TWTA soon. During the SW Willie QSO'd **PA3CSG** on 10 GHz.

### **N2IQU**

Mark went to Dayton, but was back for the May SW and worked 8 or 9 on 23 cm and one station on 70 cm. His 10 GHz dish has been moved to its operating location and needs to be recabled. Mark expects to be QRV on 3 cm with 20 w in a month or so, with more power to follow later.

### **ON5RR**

Marc writes -- As reported in the last NL, Michel and I did quite a bit of work on our 1296 station. Our antenna mast is now cut down from 12 m to 7 m. The dish is fully enforced and stressed. To get active, it now only takes about half an hour. All connectors and relays have been measured and checked out. The biggest improvement we made involved the feed. By trimming the monopoles, we moved the return loss from 10-11 dB to 28-29 dB. On Sunday 23 May we tested the complete station. Our OZ9CR did not like activity after 2 months of sleep. It was oscillating and produced only about 100 W. Luckily we did not blow the preamp. After retuning it, we worked **HB9SV**, **SM2CEW**, **DF3RU**, **F2TU**, **W2UHI**, **EA6ADW**, **LX1DB** and **W4RDI** for initial #79 and K9BCT #80. Nil was heard in skeds with **W3XS** and **WA8WZG**. **DJ5MN** and **K9ZZH** couldn't make their skeds and left a message. Our impression is that the station has improved. Received reports were better than before and we had very consistent echoes all the time. Even the Sun noise we measured was up to 17 dB! We plan to be QRV again in June.

### **PA3CSG**

Geert was active on 3 cm in May and QSO'd **VE4MA**, **LX1DB**, and **DL2LAC** to bring him to initial #19 on 10 GHz. He plans to be QRV again on 3 cm in June, and requests no skeds on 70 or 23 cm because of his 3 cm activity. He notes that his max azimuth on 70 and 23 cm is now 250 degs because of blockage from his 10 GHz dish.

### **RW1AW**

Alex's new PA is working well with 1.6 kW out on 432. He worked during the SW **K2UYH, DL7APV and DF3RU** He says his random QSO with **K2UYH (569/559)** was excellent.

### **VE1ALQ**

Darrell is now QRV on 6 cm with a 11' dish and 180- 200 W, but with the following limitations -- These same restrictions will apply to up and coming 3 cm as well. Minimum el on moonrise is 30 deg due to spring and summer tree foliage. Fall and winter the restriction is only 24 deg. The max el is 61 deg due to polar mount limitations. The max AZ is 260 deg due to an adjacent 40' VHF tower obstruction. Minimum el is set by the limit on max AZ. 6 cm power is 200 W +/- 10 %. The dish is 3.4 m with an f/d of 0.36. Moon noise is 0.75 dB from a W5LUA preamp with an SMA input (working on W5LUA preamp with WG input). Computer tracking dead band 0.12 degrees (still need full 360 degs for accurate calibration). The feedline is 18' of WR-159, 6' WR-159 Flex and 13' WR- 137 flex. The dish feed is VE4MA/W5LUA with VSWR non-detectable at TWT output and -32 dB reflected coupling. The LO freq stability and accuracy is locked to a 0.005 PPM 5 MHz standard. It will be the same for the 10 GHz station. The TX IF is a TS-790 at 144 MHz, RX IF is a TS-950SDX at 28 MHz with HB 144 MHz down converter. I prefer not to operate when the Moon is at Zenith as was the case with my 1st 2 initial QSOs with **VE4MA and W5LUA**. The Doppler with VE4MA was -850 Hz, and with W5LUA -65 Hz and falling. The CW notes were (T), terrible. Skeds are welcomed, if E-mailed please send copy to K1RQG, especially if on a SW.

### **W2UHI**

Fank is QRV again on 23 cm after having problems with his rig. His xvtr is still not repaired and he is operating split TX/RX. During May he QSO'd **DF4PV, KB2AH, N2IQU, HB9SV, OE5EYM, W4RDI, KD4LT, ZS6AXT, EA6ADW, W6HD, HA5SHF and W7SZ** - most during the SW. He is also making progress on his 10 GHz system, but is not yet QRV.

### **W7HAH**

Shep writes -- Not much to report this time. On 20 April I worked **VE6TA (0/0)** on random and **W3XS (559/459)** for initial #204. I had a number of skeds with VK4AFL and was heard on 21 April (M), but still no QSO. I am always interested in skeds.

### **WA9FWD**

John was active on both 70 and 23 cm in May. During the SW he had WX problems, but did QSO on 70 cm **EA3DXU**. On 23 cm John worked **KD4LT** and **W6HD**. Someone else called, but he never identified the call. John now has an e-mail address:

## John, WA9FWD

and is willing to take skeds.

## **ZS6AXT**

Ivo's report for the last SWs -- I worked on 23 cm, on 23 April HB9BBD, VE1ALQ and K5JL, on 24 April HB9BBD, I5MPK, KB2AH, HB9SV and OZ6OL, on 25 April OE5EY, OE9ERC, SM2CEW, GW3XYW, DF4PV and LX1DB - CWNR were IK3GHY and K5JL, on 22 May HB9SV, N2IQU, KB2AH, W2UHI, KD4LT, EA6ADW, G3LTF and W6HD - CWNR was I5MPK (something was wrong with his RX), and on 23 May ON5RR, OZ6OL, F2TU, DF4PV, W2UHI, SM2CEW, LX1DB, OE5EY and DF3RU - CWNR was HA5SHF. No other stations were worked or heard so there was not much activity during both weekends. There was good weather here during both weekends, but otherwise very bad with rain, thunderstorms, etc., (it is our "dry" season here!), so I was not able to do much outside. This seems to be improved this week, so I will try to check, install and try again my 6 cm equipment in the feed. ZS6JON may be also soon QRV on 70 cm and later on 23 cm, with a low power initially. Peter, ZS6PT, has moved permanently to ZL, so hopefully he may be QRV from there, when he settles down. I look forward to more EME activity from ZS soon.

## **K2UYH**

I was only able to be QRV on 432, the first day of the SW this month because of conflicting family actives. I recently switched over to a direct video camera readout of azimuth using a system developed by KB2AH. This eliminates the errors I have experience with my previous pot based readout. I became involved in making some last minute changes to this system and lost track of time. When I realized the time, I had missed my RW1AW sked - sorry, but fortunately we were able to connect later. Conditions seemed to be quite good despite the shift from perigee. I have found that signal "copyability" is much more important than path loss for making QSOs. Contacts made on 22 May were at 2038 ON4KNG (559/559), 2055 SM2CEW (559/559), 2058 I5CTE (559/559), 2110 OZ6OL (449/549), 2121 DL1YMK (449/449) for initial #615, 2133 QRZ - this station was sending too fast for me and never identified despite several exchanges, 2215 RW1AW (559/569) for initial #616, 2236 DF3RU (569/569) and (55/55) on SSB and 2300 nil AL7OB on sked. A 2nd e-mail sked with AL7OB was received after sked time. I will be in CA for the International Microwave Symposium and will not be back in time for the SW, so no skeds or activity this month. I may be able to listen from one of the CA stations.

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## **NETNEWS**

**VE4MA**, Barry is working on 24 GHz EME gear, and now have 2 24 GHz

preamps running. On 5.7 GHz Barry worked VE1ALQ.

**AC3A**, is interested in ideas for 1296 EME. Scott can be reached at:  
[AC3A](#)

**9H1PA**, Philip, is QRV on 70 cm with 4 x 10 el XPOL 3 wl yagis and 700 W. He can be reached via e-mail at:

[9H1PA](#)

**KD4LT** has been tied up with work, but was active on 1296 EME in May and QSO'd worked DF4PV.

**AA5C** had a good contact with I4CHY for initial #20 on 10 GHz during the preSW.

**DJ5MN** was unable to be QRV during the May SW and sent notice to cancel all his skeds.

**W4RDIV** was QRV again on 23 cm during the May SW.

**9H1ES** was not QRV on either 23 cm or 3 cm in May, but expects to be operational on 10 GHz before the June SW.

**W7FNV** is still around, but also still having RX problems on 70 cm and does not expect to be QRV for the May SW.

**KB8RQ** worked 2 out of 3 of his skeds: DL8OBU and W7CNK were OK, but he only heard EA3DXU and did not complete.

**WA8WZG** missed his May SW skeds because of bad storms, but did hear KD4LT before disconnecting.

**W7SZ** worked in the May SW on 1296 W2UHI on random. He heard JA7BMB on only one and sequence and did not complete.

**W7CNK**, during SW skeds copied nil from EA3DXU - something was in the noise, and worked KB8RQ.

**WE2Y** listen in on W7CNK - EA3DXU sked and says they were 90 degs apart.

**HP3XUG** had a massive power failure during SW and was also hampered by bad WX. Louie needs reskeds with DL3YEE, and reports that he will be QRT from July through Sept.

**KA0RYT** had power supply problems and was not QRV for the May SW.

**K6IBY** has a new e-mail address:  
**K6IBY**

**EA6ADW** worked only JA7BMB and KD5FZX during his May skeds.

**KL7HFQ** is QRV on 70 cm and is looking for info on 7213 amps.

**VE6TA** was QRV on 23 cm during the May SW and not on 70 cm. He worked VK5MC for WAC, initial #35 and DXCC 25.

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## FOR SALE

**DL4KGS** is looking for a low noise preamp (< 0.4 dB NF). Contact Gerald at e-mail: [DL4KGS](#)

**WA4NJP**, sends the following info on his offer to sell sheet of screening. The price is really \$00.40/sq ft, which equates to about 21 sq/ft per sheet at about \$8.50 a sheet, i.e., \$00.40 sq/ft not \$.40 a sheet!

**DL8YHR** is searching for a 432 PA with more then 500 W. Contact Frank at e-mail: [DL8YHR](#)

**W2UHI** needs SMA to WR90 transitions, 2 if possible.

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## THE EASTERN VHF/UHF CONFERENCE

The meeting will be held on Aug 27, 28 and 29 in Endfield, CT at the Harley Hotel. Guest speakers will provide talks on topics from 50 MHz to 100 GHz (SHF Imaging), Band Rap Sessions, Lab Sessions and Demonstrations, Flea Market, and Antenna Measurements. Saturday afternoon will host a NF measurement session for 50 MHz to 10 GHz. A Conference Proceeding will be published and will be available from the ARRL in Sept. A hospitality suite will be held Friday evening for early arrivals and a dinner banquet on Saturday night. Talks will begin at 0900 AM ESDT Saturday morning and the Flea Market and Antenna Measurements on Sunday Morning. If interested, please contact Bruce Wood - N2LIV, 3 Maple Glen Lane, Nesconset, NY (516) 265-1015 (h) or . Reservations can be made at the Harley Hotel (800) 321-2323 or (860) 741-2211. A block of rooms is reserved under the NEWS Group or Eastern VHF/UHF Conference until August 6th, 1999. Many noted Northeastern [US] EME'ers will be present.

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# FINAL

Time is getting short for making plans to attend the EME Symposium in Rochester on 21-22 Aug being organized by N2IQU. This meeting is intended primarily to help newcomers get started on EME, but many of the 432 and above regulars will be there. I will be doing a tutorial on Faraday rotation. KB2AH is preparing a proceeding book on CD and is sure to have examples of his 23 cm PAs. The trip should be worthwhile just to see Mark's 48' dish!

K1RQG's computer blew up last week and he lost his e-mail capabilities. He thinks he may have lost his main hard drive with many EME related files, which he did not have backed up. Joe is devastated! It may be several weeks before he gets things patched up and back on line.

That's the news for this month. We obviously need more reports and technical material. Please keep the info coming.

73, Al - K2UYH



## [N6BQ Antenna Party at WA6KBL](#)

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## [AA5C ussing a RW90 TWT](#)

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**DL1YMK:**  
4 x 30 el 8.2 wl BV opt.  
MGF 4819, Cavity Preamp .35 dB NF  
YL1050 HPA, 1,5 KW at power splitter of yagi's

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**JA5NNS:**  
Ant: Hor: 8 \* CD-X-727 ( 27 el Yagi )  
Vert: 8 \* K1FO, 21 el Yagi  
TX: Kenwood TS790S + 3CX-800A7 \* 2 Input 3 KW  
RX: Preamp FHX-35LG, NF 0.45 dB, JRC-NRD545 + x-tal conv.

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### From RW3BP:

Sergei lives in an apartment on the 16th floor on the edge of Moscow. His station is a 1.75m offset feed dish with a 50 Watt TWT and HEMT front end. The 2 feeds are optimized for transmitting and receiving. His TR switching system moves the proper feed in position. Sergei has made many 10 GHz EME QSO's with this setup.

The antenna was installed through the window, The basis of the antenna mount is like a big door hinge with 100 mm of steel tubing mounted to it. This lets me turn the support towards the window and install the complete antenna step by step. I had only help during the last step of the installation. My friend held the dish with a rope from the roof while I mounted the reflector on the AZ-EL mount.

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#### EME Skeds for JUN 19

Time	432.040	432.045	432.055
0330z	JA5NNS-W7HAH		
0400z	VK4AFL-W7HAH		
1300z	EA3DXU-JA5NNS		
1730z	EA3DXU-OZ6OL		
1800z	HP3XUG-DL3YEE		
1830z		VE1ALQ-RW1AW	
1900z	WA9FWD-PY5ZBU		
1930z	WE2Y -DL8OBU	KA0RYT-RW1AW	
2000z	WE2Y -EA3DXU		
2030z	W7HAH -DJ3FI	KB4CNI-EA3DXU	
2100z	W7HAH -OZ6OL	WBOGGM-EA3DXU	
2130z	W7HAH -GD4IOM	AL7OB -WE2Y	W7CNK -EA3DXU
2200z	W7HAH -KB4CNI	AL7OB -DK3WG	PY5ZBU-EA3DXU
2230z	W7HAH -PY5ZBU	KL7HFQ-W5ZN	
2300z	W7HAH -LU4HO		

#### EME Skeds for JUN 20

Time	432.040	432.050

0130z W7HAH -HP3XUG  
0300z AL7OB -HP3XUG  
0330z HP3XUG-W7CNK

**EME Skeds for JUN 19**

Time 1296.050

1230z ON5RR -JF3HUC

**Skeds for JUN 20**

Time	1296.050	1296.060	1296.070	1296.075
1230z	HA5SHF-JA7BMB			
1300z	HA5SHF-4X6UJ			EA6ADW-JF3HUC
1330z	I5MPK -HA5SHF			
1400z	I6PNN -HA5SHF	ON5RR -RW3BP		
1430z	HB9BHU-HA5SHF			ON5RR -DJ5MN
1500z	ON5RR -DL8OBU			
1730z	VE3BQN-HA5SHF			
1830z	LU6DW -HA5SHF			
1900z	WA8WZG-HA5SHF	K3HZO -I6PNN	ON5RR -LU6DW	
1930z	K9BCT -HA5SHF	K3HZO -I5MPK W3XS	-ON5RR	WA9OUU-EA6ADW
2000z	K3HZO -DJ5MN			KB0PYO-EA6ADW
2030z	W4OP -HA5SHF	K9ZZH -EA6ADW		K3HZO -EA3UM
2100z	K3HZO -S59DCD			WA9FWD-ON5RR
2130z	K3HZO -G4DZU	WA9FWD-PY5ZBU	K9ZZH -ON5RR	W7QX -EA6ADW
2200z	K6DV -EA6ADW			WA9FWD-K3HZO
2230z	W7SZ -ON5RR			

**Skeds for JUN 19**

Time 10368.050

1900z VE4MA -OH2AXH  
1930z AA5C -OH2AXH  
2000z W5LUA -OH2AXH  
2030z N6BQ -PA3CSG

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[Learn about the upcoming EME Symposium.](#)

[EME 2000, the upcoming EME conference in Rio, Brazil.](#)

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**Most recent Schedules from Klaus, DL4EBY**

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**Lunar Calendar for 1999 prepared by G3SEK**

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**Netnotes by K1RQG**

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**Leave Contest Info or Comments to Allen Here**

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[Rein, W6/PA0ZN](#)

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